SIRCO MOT AT

Remotely operated load break switches
from 125 to 3200 A

SIRCO MOT AT
4 x 630 A

SIRCO MOT AT
4 x 1600 A

The solution for

- Building
- Network coupling
- Emergency disconnection

Strong points

- High performance breaking capacity - up to 3200 A 690 VAC
- Motorised remote operation
- Manual emergency operation

Compliance with standards

- IEC 60947-3
- EN 60947-3
- NBN EN 60947-3
- BS EN 60947-3
- GB 14048

Function

SIRCO MOT AT are remotely operated 3/4 pole load break switches. They make and break under load conditions via remote operation and provide safety isolation for any low voltage circuit.

This is ensured via volt-free contacts using either a pulse or contactor logic.

Advantages

Extended power range

These products offer great power flexibility thanks to a wide power supply range of 208 to 277 VAC ±20%.

Integrated auxiliary contacts

As part of the product monitoring function, the SIRCO MOT AT enables the transmission of information relating to their position.

This is possible thanks to the standard integration of an auxiliary contact for each position.

General characteristics

- 2 stable positions (I, 0)
- One auxiliary contact per position as standard
- Positive break indication
- AUTO/MANU selector
- Manual emergency operation
- Padlocking in position 0 (position I optional).
- Ratings: 125 to 3200 A

socomec Innovative Power Solutions

References

SIRCO MOT AT

Rating (A) / Frame size	N° of poles	Power supply voltage	Switch body	Terminal screens	Terminal shrouds
125 A / B3	3 P	230 VAC	9915 **3012**	3 P 1509 **3012** 4 P 1509 **4012**	3 P 2694 **3014** 4 P 2694 **4014**
	4 P		9915 **4012**		
160 A / B3	3 P		9915 **3016**		
	4 P		9915 **4016**		
250 A / B4	3 P		9915 **3025**	3 P 1509 **3025** 4 P 1509 **4025**	3 P 2694 **3021** 4 P 2694 **4021**
	4 P		9915 **4025**		
400 A / B4	3 P		9915 **3040**		
	4 P		9915 **4040**		
630 A / B5	3 P		9915 **3063**	3 P 1509 **3063** 4 P 1509 **4063**	3 P 2694 **3051** 4 P 2694 **4051**
	4 P		9915 **4063**		
800 A / B6	3 P		9915 **3080**	3 P 1509 **3080** 4 P 1509 **4080**	
	4 P		9915 **4080**		
1000 A / B6	3 P		9915 **3100**		
	4 P		9915 **4100**		
1250 A / B6	3 P		9915 **3120**		
	4 P		9915 **4120**		
1600 A / B7	3 P		9915 **3160**	3 P 1509 **3160** 4 P 1509 **4160**	
	4 P		9915 **4160**		
2000 A / B8	3 P		9915 **3200**	3 P 1509 **3200** 4 P 1509 **4200**	
	4 P		9915 **4200**		
2500 A / B8	3 P		9915 **3250**		
	4 P		9915 **4250**		
3200 A / B8	3 P		9915 **3320**		
	4 P		9915 **4320**		

Accessories

Terminal shrouds

Use

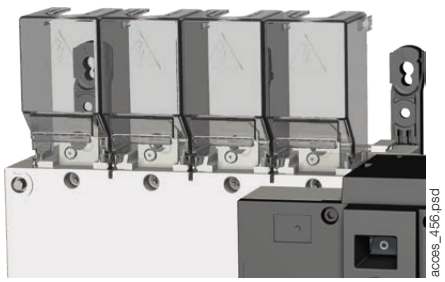
Protection IP2X against direct contact with terminals or connecting parts.

Advantages

Perforations allow remote thermographic inspection without the need to remove the shrouds.

Rating (A)	Frame size	N° of poles	Position	Reference
125 … 200	B3	3 P	Upstream or downstream	2694 **3014**(1)
125 … 200	B3	4 P	Upstream or downstream	2694 **4014**(1)
250 … 400	B4	3 P	Upstream or downstream	2694 **3021**(1)
250 … 400	B4	4 P	Upstream or downstream	2694 **4021**(1)
630	B5	3 P	Upstream or downstream	2694 **3051**(1)
630	B5	4 P	Upstream or downstream	2694 **4051**(1)

(1) For complete protection, order the reference 2 times.



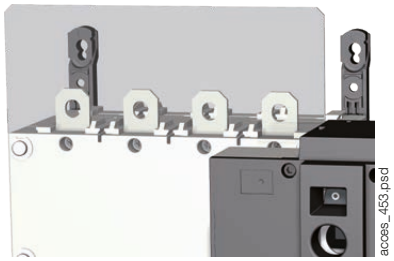
Accessories (continued)

Terminal screens

Use

Upstream and downstream protection from direct contact with terminals or connection parts.

Rating (A)	Frame size	N° of poles	Position	Reference
125 … 200	B3	3 P	Upstream/downstream	1509 **3012**
125 … 200	B3	4 P	Upstream/downstream	1509 **4012**
250 … 400	B4	3 P	Upstream/downstream	1509 **3025**
250 … 400	B4	4 P	Upstream/downstream	1509 **4025**
630	B5	3 P	Upstream/downstream	1509 **3063**
630	B5	4 P	Upstream/downstream	1509 **4063**
800 … 1250	B6	3 P	Upstream/downstream	1509 **3080**
800 … 1250	B6	4 P	Upstream/downstream	1509 **4080**
1600	B7	3 P	Upstream/downstream	1509 **3160**
1600	B7	4 P	Upstream/downstream	1509 **4160**
2000 … 3200	B8	3 P	Upstream/downstream	1509 **3200**
2000 … 3200	B8	4 P	Upstream/downstream	1509 **4200**



Copper bar connection kits

Use

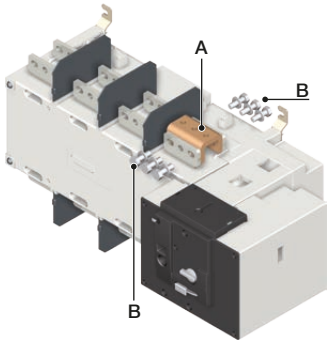
Enables:

- To allow connection between the two power terminals of the same pole for 2000 to 3200 A ratings

For 3200 A rating, the connection pieces (part A) are delivered bridged from factory.

Bolt sets must be ordered separately.
Further details for these specific accessories are available in the user guide downloadable from www.socomec.com.

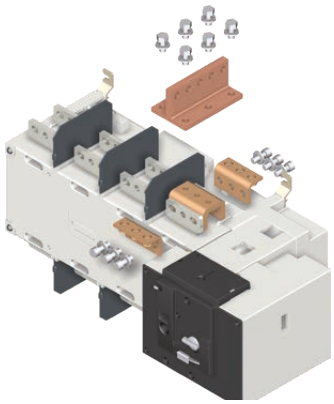
Fig. 1



Top or bottom flat connection - Fig. 1

Rating (A)	Part	Fig. 1 - Part	Quantity to order per pole	Reference
2000 … 2500	Connection	A	1	2619 **1200**
2000 … 2500	Screws	B	1	2699 **1200**
3200	Connection	A		included
3200	Screws	B	1	2699 **1200**

Fig. 2



Top or bottom edgewise connection - Fig. 2

Rating (A)	Part	Fig. 2 - Part	Quantity to order per pole	Reference
2000 … 2500	Connection	A	1	2619 **1200**
2000 … 3200	T piece + bolts	C	1	2629 **1200**
2000 … 3200	Bracket + bolts	D	1	2639 **1200**
3200	Connection	A		included

Autotransformer

Use

Enables a 230 VAC device to be supplied with 400 VAC.

Rating (A)	Frame size	Reference
125 … 3200	B3 … B8	1599 **4064**

DC power supply

Use

For power supplied from one 12 or 24 VDC source.
To be positioned as close as possible to DC power supply source.

Rating (A)	Frame size	Operating voltage	Reference
160 … 1600	B3 … B7	12 VDC / 230 VAC	1599 **5012**
160 … 1600	B3 … B7	24 VDC / 230 VAC	1599 **5112**

Auxiliary contact

Use

Pre-break and signalling of positions I:
Up to 2 NO/NC auxiliary contacts
(1 fitted as standard).
Low level AC: contact us.

Connection to the control circuit

By 6.35 mm fast-on terminal.

Electrical characteristics

30,000 operations.

acces_065

Characteristics

Rating (A)	Rated current (A)	Operating current I_e (A) 250 VAC AC-13	400 VAC AC-13	24 VDC AC-13	48 VDC AC-13
125 … 1600	16	12	8	14	6

References

NO/NC changeover contact

Rating (A)	Contact(s)	Reference
125 … 800	2nd	1999 **1002**
800 … 1600	2nd	1999 **1032**
2000 … 3200	2nd	Included

2-position padlocking (I-0)

Use

Enables the product to be padlocked in positions 0, I and II (factory fitted).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Rating (A)	Frame size	Reference
125 … 630	B3 … B5	9599 **0003**
800 … 3200	B6 … B8	9599 **0004**

Key handle interlocking system

Use

Locking of the electrical control and the emergency control in position 0 using a RONIS EL11AP lock (factory fitted).

As standard, locking in position 0.
Optional padlocking in 2 positions: locking in position 0 and 1


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Rating (A)	Frame size	Reference
125 … 630	B3 … B5	9599 **1006**
800 … 3200	B6 … B8	9599 **1004**

Accessories (continued)

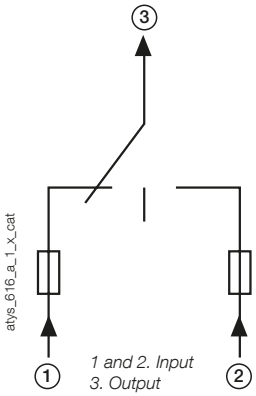
Double power supply - DPS

Use

Provides power to the SIRCO MOT from two 230 VAC, 50/60 Hz networks.

Input

- The input is considered as “active” from 200 VAC.
- Maximum voltage: 288 VAC.
- Internal protection: each input is fuse protected (3.15 A).
- Connecting to fixed terminals: maximum 6 mm^2.
- Modular product: 4 module width.



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Accessories	Reference
DPS	1599 **4001**

Mounting spacers

Use

Increases the distance between the rear power terminals and the backplate by 1 cm.

This accessory may also be used to replace the original mounting spacers.


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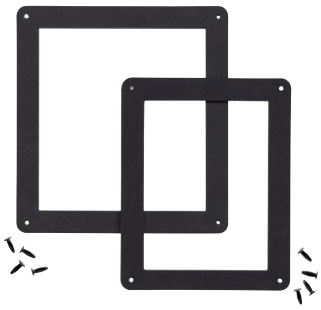
Rating (A)	Frame size	Accessories	Reference
125 … 630	B3 … B5	1 set of 2 spacers	1509 **0001**

Door protective surround

Use

When direct access to the SIRCO MOT front face is required, the door surround can be utilised to provide a clean and safe finish to the panel's cut-out.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Rating (A)	Frame size	Reference
125 … 630	B3 … B5	1529 **0012**
800 … 3200	B6 … B8	1529 **0080**

Characteristics according to IEC 60947-3 and IEC 60947-6-1

125 to 630 A / B3 to B5

Thermal current I_{th} at 40°C		**125 A**	**160 A**	**250 A**	**400 A**	**630 A**
Frame size		**B3**	**B3**	**B4**	**B4**	**B5**
Rated insulation voltage U_i (V) (power circuit)		800	800	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV) (power circuit)		8	8	12	12	12
Rated operational currents I_e (A) according to IEC 60947-3						
Rated voltage	**Utilisation category**	**A/B**	**A/B**	**A/B**	**A/B**	**A/B**
415 VAC	AC-21 A / AC-21 B	125/125	160/160	250/250	400/400	630/630
415 VAC	AC-22 A / AC-22 B	125/125	160/160	250/250	400/400	630/630
415 VAC	AC-23 A / AC-23 B	125/125	160/160	200/200	400/400	630/630
500 VAC	AC-20 A / AC-20 B	125/125	160/160	250/250	400/400	630/630
690 VAC	AC-20 A / AC-20 B	125/125	160/160	250/250	400/400	630/630
690 VAC	AC-21 A / AC-21 B	125/125	160/160	200/200	200/200	500/500
690 VAC	AC-22 A / AC-22 B	125/125	125/125	160/160	160/160	400/400
690 VAC	AC-23 A / AC-23 B	63/80	63/80	125/125	125/125	400/400
220 VDC	DC-20 A / DC-20 B	125/125	160/160	250/250	400/400	630/630
220 VDC	DC-21 A / DC-21 B	125/125	160/160	250/250	250/250	630/630
220 VDC	DC-22 A / DC-22 B	125/125	160/160	250/250	250/250	630/630
220 VDC	DC-23 A / DC-23 B	125/125	125/125	200/200	200/200	630/630
440 VDC	DC-20 A / DC-20 B	125/125	160/160	250/250	400/400	630/630
440 VDC	DC-21 A / DC-21 B	125(1)/125(1)	125(1)/125(1)	200(1)/200(1)	200(1)/200(1)	500(1)/500(1)
440 VDC	DC-22 A / DC-22 B	125(1)/125(1)	125(1)/125(1)	200(1)/200(1)	200(1)/200(1)	500(1)/500(1)
440 VDC	DC-23 A / DC-23 B	125(2)/125(2)	125(2)/125(2)	200(2)/200(2)	200(2)/200(2)	500(2)/500(2)
Short-circuit capacity						
Rated short-time withstand current 1s. I_{cw} (kA rms)		7	7	9	9	13
Rated peak withstand current in I_{cc} (kA peak)		20	20	30	30	45
Prospective short-circuit current (kA rms)		100	100	50	18	70
Associated fuse rating (A)		125	160	250	400	630
Connection						
Minimum Cu cable cross-section (mm^2)		35	50	95	185	2 x 150
Minimum Cu busbar cross-section (mm^2)						2 x 30 x 5
Maximum Cu cable cross-section (mm^2)		50	95	150	240	2 x 300
Maximum Cu busbar width (mm)		25	25	32	32	50
Min./max. tightening torque (Nm)		9/13	9/13	20/26	20/26	20/26
Switching time (at nominal voltage)						
I-0 or 0-II (s)		0.45	0.45	0.85	0.85	0.85
Power supply						
Min./max. value (VAC)		166/332	166/332	166/332	166/332	166/332
Control supply power demand						
Power supply 230 VAC inrush/nominal (VA)		184/92	184/92	276/115	276/115	276/150
Mechanical characteristics						
Durability (number of operating cycles)		10000	10000	8000	8000	5000
Weight 3 (kg)		5.7	5.7	6.6	6.6	11.4
Weight 4 (kg)		6.9	6.9	7.4	7.4	13.3

(1) 3-pole device with 2 poles in series for the '+' and 1 pole for the '-'.
(2) 4-pole device with 2 poles in series per polarity.

Characteristics according to IEC 60947-3 and IEC 60947-6-1 (continued)

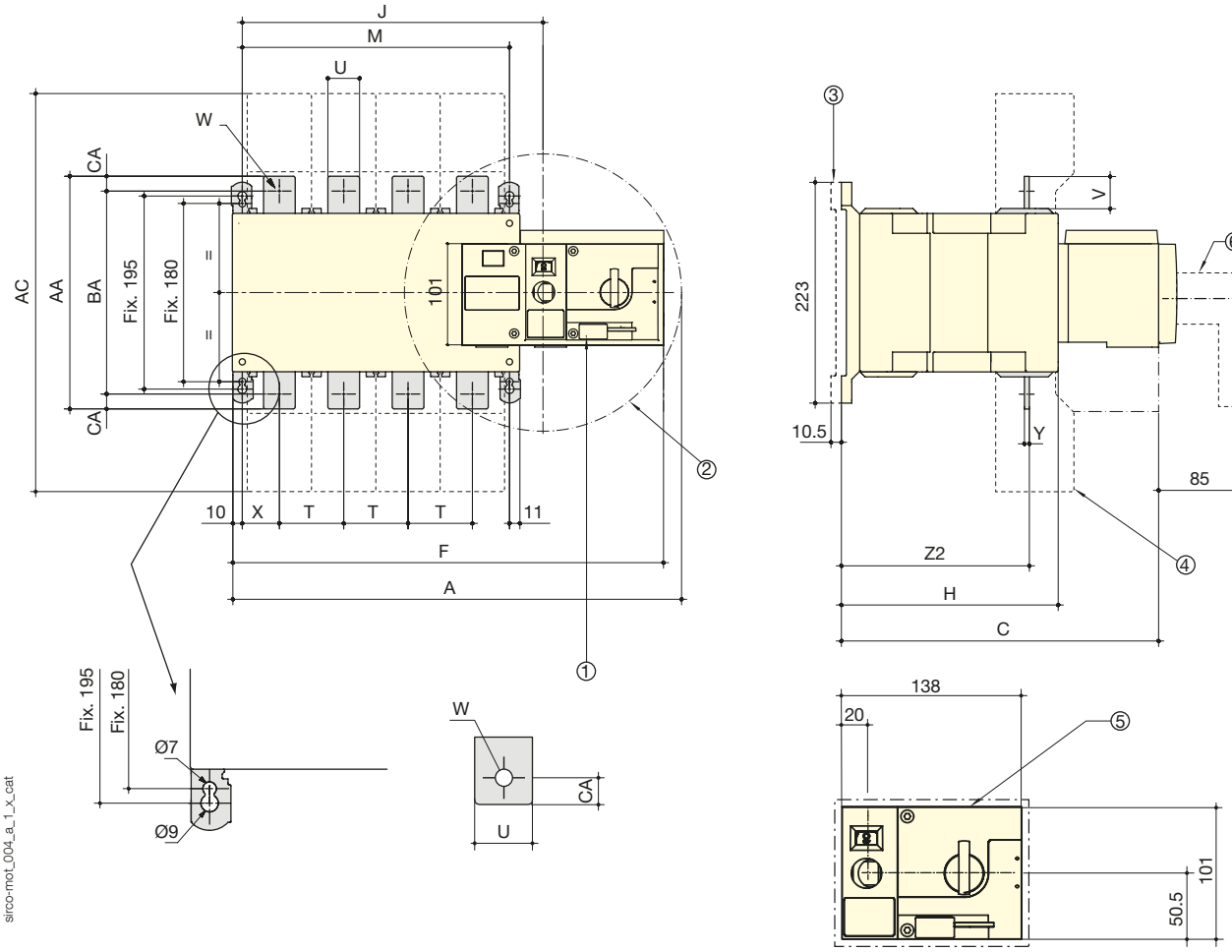
800 to 3200 A / B6 to B8

Thermal current I_{th} at 40°C		**800 A**	**1000 A**	**1250 A**	**1600 A**	**2000 A**	**2500 A**	**3200 A**
Frame size		**B6**	**B6**	**B6**	**B7**	**B8**	**B8**	**B8**
Rated insulation voltage U_i (V) (power circuit)		1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV) (power circuit)		12	12	12	12	12	12	12
Rated operational currents I_e (A) according to IEC 60947-3								
Rated voltage	**Utilisation category**	**A/B**	**A/B**	**A/B**	**A/B**	**A/B**	**A/B**	**A/B**
415 VAC	AC-21 A / AC-21 B	800/800	1000/1000	1250/1250	1600/1600	-/2000	-/2500	-/3200
415 VAC	AC-22 A / AC-22 B	800/800	1000/1000	1250/1250	1600/1600	-/2000	-/2500	-/3200
415 VAC	AC-23 A / AC-23 B	800/800	1000/1000	1250/1250	1250/1250	-/1600	-/1600	-/1600
690 VAC	AC-20 A / AC-20 B	800/800	1000/1000	1250/1250	1600/1600	2000/2000	2500/2500	3200/3200
690 VAC	AC-21 A / AC-21 B	800/800	800/800	800/800	1000/1000	-/2000	-/2500	-/3200
690 VAC	AC-22 A / AC-22 B	800/800	800/800	800/800	1000/1000			
690 VAC	AC-23 A / AC-23 B	200/250	200/250	200/250	500/500			
220 VDC	DC-20 A / DC-20 B	800/800	1000/1000	1250/1250	1600/1600			
220 VDC	DC-21 A / DC-21 B	800/800	1000/1000	1250/1250	1250/1250			
220 VDC	DC-22 A / DC-22 B	800/800	1000/1000	1250/1250	1250/1250			
220 VDC	DC-23 A / DC-23 B	800/800	1000/1000	1250/1250	1250/1250			
440 VDC	DC-20 A / DC-20 B	800/800	1000/1000	1250/1250	1600/1600			
440 VDC	DC-21 A / DC-21 B	800(1)/800(1)	1000(2)/1000(2)	1250(1)/1250(1)	1250(1)/1250(1)			
440 VDC	DC-22 A / DC-22 B	800(1)/800(1)	1000(2)/1000(2)	1250(1)/1250(1)	1250(1)/1250(1)			
440 VDC	DC-23 A / DC-23 B	800(2)/800(2)	1000(2)/1000(2)	1250(2)/1250(2)	1250(2)/1250(2)			
Short-circuit capacity								
Rated short-time withstand current 1s. I_{cw} (kA rms)		26	35	50	50	50	50	50
Rated peak withstand current in I_{cc} (kA peak)		55	80	110	120	120	120	120
Prospective short-circuit current (kA rms)		50	100	100	100			
Associated fuse rating (A)		800	1000	1250	2x800			
Connection								
Minimum Cu cable cross-section (mm^2)		2 x 185	2 x 240	2 x 60 x 5	2 x 80 x 5	2 x 100 x 10	2 x 100 x 10	2 x 100 x 10
Minimum Cu busbar cross-section (mm^2)		2 x 40 x 5	2 x 50 x 5					
Maximum Cu cable cross-section (mm^2)		2 x 300	4 x 185	4 x 185	6 x 185			
Maximum Cu busbar width (mm)		63	63	63	100	100	100	100
Min./max. tightening torque (Nm)		20/26	20/26	20/26	40/45	40/45	40/45	40/45
Switching time (at nominal voltage)								
I-0 or II-0 (s)		1.6	1.6	1.6	1.6	1	1	1
Power supply								
Min./max. value (VAC)		166/332	166/332	166/332	166/332	166/332	166/332	166/332
Control supply power demand								
Power supply 230 VAC inrush/nominal (VA)		460/184	460/184	460/184	460/230	812/322	812/322	812/322
Mechanical characteristics								
Durability (number of operating cycles)		4000	4000	4000	3000	3000	3000	3000
Weight 3 P (kg)		27.9	27.9	27.9	30.4	50.7	50.7	50.7
Weight 4 P (kg)		32.2	32.2	32.2	34.5	61.6	61.6	61.6

(1) 3-pole device with 2 poles in series for the '+' and 1 pole for the '-'.
(2) 4-pole device with 2 poles in series per polarity.

Dimensions

125 to 630 A

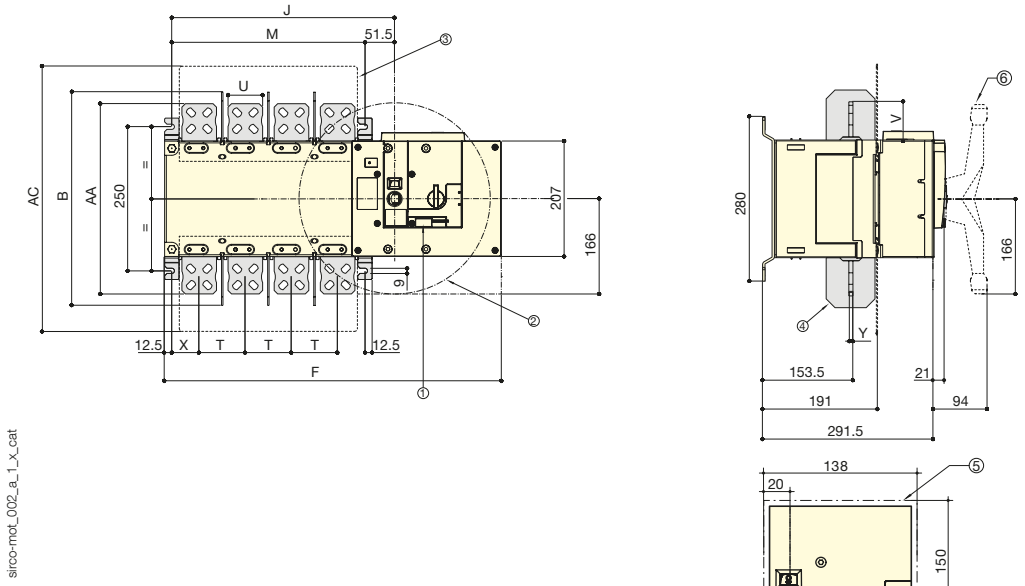


1. Triple padlock tab, 4-8 mm
2. Emergency manual operation: max. handle radius, operating angle 90°
3. Spacers
4. Inter-phase screen
5. Cut out dimension
6. Manual emergency operation

Rating (A) / Frame size	Overall dimensions A 3p.	A 4p.	C	Terminal shrouds AC	Case F 3p.	F 4p.	H	J 3p.	J 4p.	Switch mounting M 3p.	M 4p.	Connection T	U	V	W	X 3p.	X 4p.	Y	Z2	AA	BA	AC
125 / B3	304	340	244	235	266.5	322.5	151	154	184	120	150	36	20	25	9	26	22	3.5	134	135	115	10
160 / B3	304	340	244	235	266.5	322.5	151	154	184	120	150	36	20	25	9	26	22	3.5	134	135	115	10
250 / B4	345	395	244.5	260	328	378	153	195	245	160	210	50	25	30	11	33	33	3.5	134.5	160	130	15
400 / B4	345	395	244.5	260	328	378	153	195	245	160	210	50	35	35	11	33	33	3.5	134.5	170	140	15
630 / B5	394	459	320.5	400	377	437	221	244	304	210	270	65	45	50	13	42.5	37.5	5	190	260	220	20

Dimensions (continued)

800 to 1600 A



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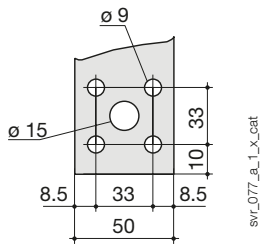
800 to 1000 A



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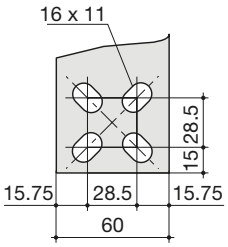
1250 A



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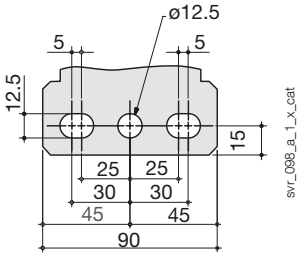
1600 A



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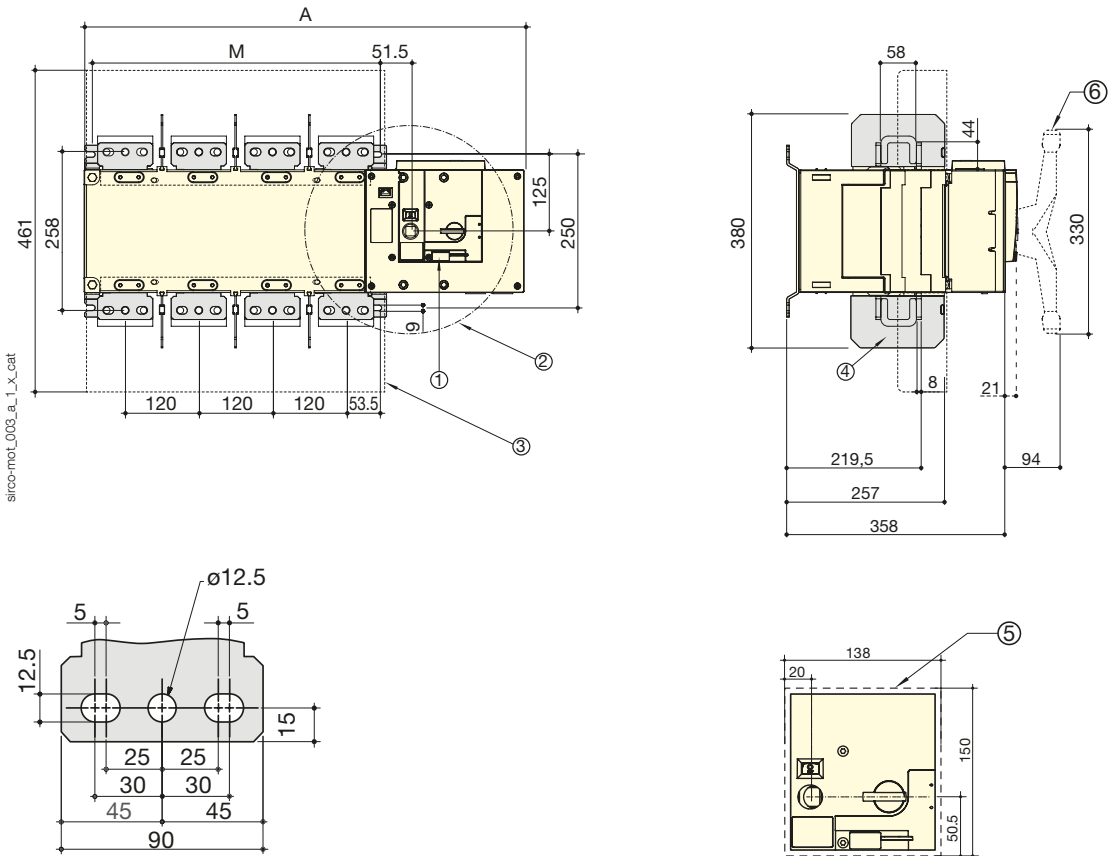
1. Triple padlock tab, 4-8 mm
2. Emergency manual operation: max. handle radius, operating angle 90°
3. Terminal screens
4. Inter-phase screen
5. Cut out dimension
6. Manual emergency operation

Rating (A)	Overall dimensions B	Terminal shrouds AC	Case F 3p.	Case F 4p.	Case J 3p.	Case J 4p.	Switch mounting M 3p.	Switch mounting M 4p.	Connection T	Connection U	Connection V	Connection X	Connection Y	Connection Z1	Connection AA
800	370	461	504	584	307	387	255	335	80	50	60.5	47.5	7	66.5	321
1000	370	461	504	584	307	387	255	335	80	50	60.5	47.5	7	66.5	321
1250	370	461	504	584	307	387	255	335	80	60	65	47.5	7	66.5	330
1600	380	531	596	716	399	519	347	467	120	90	44	53	8	67.5	288

2000 to 3200 A



1. Triple padlock tab, 4-8 mm
2. Emergency manual operation: max. handle radius, operating angle 90°
3. Terminal screens
4. Inter-phase screen
5. Cut out dimension
6. Manual emergency operation

	Overall dimensions		Switch mounting	
Rating (A)	**A 3p.**	**A 4p.**	**M 3p.**	**M 4p.**
2000 … 3200	596	716	347	467